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THE ORIGIN AND CAUSES OF NEAR-SIGHTEDNESS.

EXTRACTS FROM A NEW WORK BY PROFESSOR ARLT, OF VIENNA.

TRANSLATED BY HENRY W. WILLIAMS, A. M., M. D.,
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A CONCISE monograph[1] has been published this year by Professor Arlt, so remarkable for its clearness of demonstration, precision of argument, candor, and good judgment, that I have made a translation of some of its important points which I hope may be acceptable to readers of the JOURNAL. Remarks of my own would be superfluous, except to add that the practical conclusions of the author deserve the earnest attention of the profession and the public.

Near-sightedness, or myopia, as a permanent condition of refraction of the eye in which parallel rays are brought to a focus before they reach the retina, usually depends upon an elongation of the globe from before backwards, lengthening the antero-posterior axis of the vitreous, increasing the bulk of the latter by serous effusion, and thus crowding back and thinning the sclera, choroid, and retina.

In moderate and high degrees of myopia we find a striking alteration in the sclera, which becomes distended and thinned, the thinnest portion being, as a rule, at the posterior pole in the vicinity of the macula lutea. The choroid is also pressed backward and expanded, and at the temporal side of the optic papilla the changes take the form of a crescent, its concave border blending with the papilla, whilst its convex edge extends more or less towards the macula lutea. This change must be regarded as an atrophy of the choroid. Similar alterations in the retina have not as yet been clearly demonstrated anatomically, but my opinion that the retina is distended and its elements are thus separated from each other has been accepted by Donders, Ed. Jaeger and others. In fact Horner and Iwanoff have observed an oblique position of the rods and cones in the sensitive layer of the retina.

Before the manifestation of near-sightedness, which is most frequently between the ages of ten and sixteen, seldom as early as the fifth or sixth year of age, we may suspect a predisposition to it, from a general resemblance of the individual to parents or to other members of the family who are short-sighted; but its development cannot be predicted with certainty until the special symptoms appear. As in many other hereditary conditions and diseases, myopia may be more readily and fully developed by external causes.

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[1] Ueber die Ursachen und die Entstehung der Kurzsichtigkeit.

Congenital near-sightedness is as yet not proven; but the myopia of newborn infants depends on the greater convexity of the crystalline lens.

Predisposition to myopia — but not the condition itself — is often inherited; but myopia may often be originated where no hereditary tendency existed. Among several brothers and sisters in whose family there has been no near-sightedness, only those become myopic who tax the eyes unduly in their youth. I myself have been myopic $\frac{1}{24}$ since the age of sixteen or seventeen. Neither my parents nor grand-parents were so in the slightest degree. At thirteen I had excellent vision for far and near, but after four years of close study I noticed, during the vacations, that I could no longer recognize objects which I had formerly seen at a distance of a league. Thenceforward I thought it necessary to be careful, and my myopia has remained stationary because I began in time to avoid injurious use of my eyes. Of five brothers in a family I know, in which there had been no trace of myopia, three, who were workmen, have never shown any near-sightedness. The other two studied medicine; one of these first discovered that he was myopic whilst at the university. After graduation he devoted himself to active practice in a country district, and can now see well with concave glasses $\frac{1}{4}$. The second, after obtaining his degree, devoted himself to science and has obtained a world-wide reputation; but unfortunately his near-sightedness, which began at twenty years of age, has greatly increased; and he was compelled, soon after reaching his sixtieth year, to resign his position as professor, because his eyes, which had reached the degree of myopia $\frac{1}{4}$, could no longer read continuously without pain.

Near-sightedness is not primarily developed after about the age of sixteen. If supposed to have begun later it is probable that its real commencement had not been observed. Only those eyes become myopic which were originally normal, or, at most, slightly hypermetropic. It is possible that young eyes, moderately hypermetropic, may become normal by the natural processes of growth and may afterward undergo myopic changes.

The growth of the eyes ends at about the age of puberty, or certainly as soon as the twentieth year. From this time normal or hypermetropic eyes remain almost unchanged in form until old age, but highly myopic eyes are an exception to this rule.

Coccius caused young near-sighted persons to look at near objects, whilst he examined by the aid of suitable glasses the venous circulation within the eye; then suddenly relaxing the accommodation by having them look at far objects, he saw clearly that the calibre of the veins was increased, thus proving that they had been subjected to greater pressure in looking at near than at far distances. The reason why this intra-ocular pressure causes a giving way of the sclera near the posterior pole of the globe is found in the fact that the juvenile sclera is still tender and dilatable, and is supported, in this region, only by loose cellular and fatty tissues, and not by the ocular muscles or their tendons.

Let us now inquire what consequences are to be expected when continued work upon near objects has given rise to congestion of the circulation, increased intra-ocular pressure, and thinning of the posterior wall of the globe. If this too continuous use of the eyes is suspended, the sclera may recover its tone; but if the resumption of work renews the distension before the dilated membranes return to their normal state, or if the stretching goes beyond certain limits, the sclera, choroid and retina do not fully recover their normal condition, and the intra-ocular vessels continue for some time engorged. If this state of things exists for some hours daily, a serous exudation may occur, increasing the bulk of the vitreous and lessening its consistence.

If we would hinder the production and prevent the increase of myopia, we must not only be careful that youthful eyes are not overtasked with work upon small objects, but must also see to it that in the intervals of study, etc., opportunity is given for recreation and practice in looking at objects at a distance. The numerous expedients for averting near-sightedness are nearly all directed against overwork, insufficient light, bad print, etc., during school hours. But when we see children four or five years old allowed, especially in their convalescence from measles, scarlatina, and other diseases, to amuse themselves for hours with objects which, on account of their small size, must be held very near the eyes, or in pencil drawing (for which the mistaken parents delight in observing a talent), and this too often in badly lighted rooms, we cannot but suspect that the seeds of near-sightedness are already sown. In large cities, even during the favorable years of childhood, there is but little recreation in the open air, and there are few games which require looking at remote objects, or the estimation of distances by the eye. The eyes of the little ones thus become restricted to a limited range of vision.

I would therefore repeat that I regard the practicing the eyes in looking at distant things during the early years of childhood as no less important than a rational limitation of the amount of their use in reading, writing, and such occupations, and frequent interruption of this use, or at least a systematic change in the kind of occupation. As the want of opportunity in cities for free muscular exercise is compensated for by gymnastics, so the eyes should not only have time for rest, but should also be trained in both far and near seeing, and thus be symmetrically developed.

15 Arlington Street, *December* 9, 1876.

UNFORTUNATE RESULT OF VACCINATION.

BY Z. B. ADAMS, M. D.

On the 1st of October, 1876, a package of ivory points, charged with fresh cow matter, was procured of reputable vaccine purveyors, and used as follows: —

Three children were inoculated, namely: No. 1. A healthy boy twenty months old, of healthy Irish parents; a first vaccination. No. 2. A pale, rather large infant, whose mother is consumptive; age, one year; of Irish parents; a first vaccination. No. 3. A healthy infant four months old, born of Irish parents.

In these, and in all the cases cited, the matter was carried without delay from where it was got to the arm in which it was placed. The rest of the points in this package were given to a neighboring physician, who used them without effect.

No result occurring in any of the children inoculated with the points in this package, on October 21st a similar package of fresh cow matter was procured from the same parties. This package was used and distributed in the same manner as the first, and the result, so far as known, was null, except in cases No. 1 and No. 2.

In No. 1, on the seventh day, three dry scabs were found upon the points of inoculation, and the skin around showed a scaly epidermis, indicating a short-lived hyperæmia or slight inflammation.

In No. 2 there was a little redness of the skin on the third and fourth days, at the seat of inoculation, which, however, had entirely disappeared on the seventh day.

I am thus particular in stating these facts, as it is possible, although not probable, that the previous attempts at vaccination may have some bearing upon the unfortunate result of the third trial.

A package of human matter, warranted pure and fresh vaccine virus, was now procured from the same parties as before, with which were inoculated Nos. 1, 2, and 3, each in three places on the arm at about the insertion of the deltoid. The remainder of the package was thrown into the fire. The result was as follows: on the seventh day No. 1 presented three very perfect-looking vaccine vesicles, of the ordinary size and shape, round, cupped, with a thin scab just forming in the centre, surrounded by a pellucid ring of pure lymph, with slight areolæ of redness, and without deep induration; in short, a healthy arm. Matter was taken for No. 4.

No. 3 presented one vesicle like those just described in No. 1, somewhat smaller in size. Some lymph taken from it was introduced into the arm lower down, and some was also introduced into the arm of No. 2, which had not taken, and showed no marks of the previous attempts.

On the fourteenth day, No. 1 had marked symptoms of purulent infection. Deep black sloughs occupied the site of the vaccine vesicles; there was brawny hardness of the whole deltoid region, a huge diffuse abscess reached from the axilla to the lower border of the ribs, with hard infiltration extending to the sternum in front, and below the scapula behind, showing a waxy whiteness with distended veins. A thin ichor flowed from large incisions and no pus. This child died of pyæmia on the twenty-first day. There was no autopsy.

No. 3 showed two perfect vaccine scabs with no signs of inflammation, both scabs being apparently of the same age, although the lower one resulted from inoculation by lymph taken from its fellow on the seventh day.

No. 2, inoculated for the fourth time with fresh lymph from No. 3, as above stated, and now at the seventh day, presented three large, unhealthy, irregular sores, following the scratches of the lancet. There was no clear lymph, but some yellow pus, deep induration of the whole deltoid region, and tenderness and enlargement of sub-axillary glands. This child was vaccinated from an infant who, both at the seventh and fourteenth days, showed the vaccine disease in its most regular form, without induration of the tissues, or tenderness and swelling of glands in or about the axillary region. But it should be remarked that this child (No. 2) had a somewhat scrofulous look, and a mother who was phthisical.

No. 4 is a healthy infant, of healthy American parentage, six months old, and living under the best sanitary influences. It was inoculated from No. 1, with apparently healthy lymph; the result in every essential particular was the same as in No. 2, just described, namely, there were large, unhealthy-looking sores, spreading in the scratches made by the lancet, and inclined to burrow, with extensive induration of the arm, and some constitutional disturbance; yellow pus instead of pure lymph on the seventh day, and enlargement of the sub-axillary glands, tending to suppuration. The sores, in both Nos. 2 and 4, became large excavated ulcers on a hardened base.

This virus was of course abandoned.

ULCER OF THE FRENUM LINGUÆ IN WHOOPING-COUGH.

BY ELBRIDGE G. CUTLER, M. D.

IN the JOURNAL of July 6, 1876, mention is made of a communication by Thomas Morton, M. D., to *The British Medical Journal* of June 10, 1876, on ulcer of the frenum linguæ as a new symptom in whooping-cough. In the next issue H. C. called attention to the fact that Bouchut had, as early as 1858, mentioned this ulcer. Before this, in 1844, the characteristic ulceration was noticed in Germany by Amelung, Braun, Bruch, Zitterland, Liersch, Schmidt, and ten years later by Gamborini, of Italy.[1] In his text-book on children's diseases, fifth edition, 1871, Vogel says that it had long been known in Germany, and nearly forgotten until attention was again called to it by Gamborini, of Milan. The recent German text-books of Steiner and others mention this ulceration, and attribute it to its proper cause. The late English and American publications to which I have had access do not mention it, though doubtless their authors are not unaware of its occurrence. MacCall,[2] in an epidemic in Manchester in 1869–70, found this ulcer in forty-four per cent. of the cases brought to the dispensary of the Children's Hospital. This proportion he thinks too small, as a number of cases were examined in the first week of the disease. Gamborini found it in fifty-six per cent., and according to him it appears usually about the second week.

Though the complication was not, except so far as Dr. Morton was concerned, a newly-discovered one, the statistics were interesting, and I have been led to make observations at the Boston Dispensary during a three months' service in the children's room, this summer. The result I venture to give to the profession through the medium of the JOURNAL, premising with the remark that, as the patients were out-patients, I did not see the cases in the initial stage, and could not always follow them up so well as I could have desired.

In eighty cases of children with at least two lower incisor teeth and without cough, taken at random, there was no ulcer.

In one hundred and thirty-six cases of children with bronchitis, all with teeth, six under four years of age were found with an ulcer of the frenum linguæ, namely: —

One, a case of severe bronchitis of two weeks' duration.

One, a case of severe bronchitis of two weeks' duration, which had become worse.

One, a case of severe bronchitis of several weeks' duration.

One, quite a severe bronchitis of three weeks, with occasional vomiting; there were but two lower incisor teeth; cough not to be excited by ordinary irritation; large ulcer, size of coffee kernel.

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[1] MacCall, Glasgow Medical Journal, February, 1871. American Journal of Medical Sciences, April, 1871, page 564.

[2] Loc. cit.

One, a severe case of two weeks' duration; no vomiting; no cough on irritation.

One, a cough for two weeks; said to have had pertussis during early summer, which disappeared and left the child free for a time; on September 15th, a very slight ulceration; occasional vomiting; paroxysm could not be induced.

That is, in 4.41 per cent. of the cases there was ulcer, which occurred only in children under four years of age, whose lower incisor teeth are notoriously sharp.

Twenty-eight cases of pertussis were seen, sixteen with ulcer, and twelve without.

CASES WITH ULCER.	CASES WITHOUT ULCER.
1 first seen in third week.	1 first seen in fifth week.
1 " " after several weeks.	1 " " in third "
1 " " " " "	1 " " in fifth "
1 " " in third week.	1 " " after several weeks.
1 " " " " Bronchitis of longer duration.	1 " " in second week (no teeth).
1 " " in second " " " "	1 " " in first week; no ulcer after four weeks.
1 " " in third " " " "	1 " " in fifth "
1 " " " " " " "	1 " " in fourth week.
1 " " " " " " "	1 " " after several weeks.
1 " " " "	1 " " " " "
1 " " in fourth "	1 " " in third week (no teeth).
1 " " in third week. Bronchitis three weeks earlier.	1 " " " "
1 " " in sixth week. Quite large ulcer; child had lung complication and much fever and prostration.	
1 " " in sixth week.	
1 " " " " Mucous membrane just whitening. When first seen, in third week, there was no ulcer; it developed under observation, however.	
1 " " in fourth week. No ulcer on frenum, but one on the tongue, over the left canine tooth, which was carious and had a sharp crown; lower incisors very short and nearly gone with caries.	
16	12

In a percentage of 57.14 of the cases ulcers were observed. The oldest child was ten years, the youngest six months. But two cases ought to be excluded from the list of those in whom no ulcer was found as there were no teeth in either. This makes the percentage 61.53.

The ulcer appears to commence by superficial laceration of the mucous membrane, which under continued irritation deepens, and the cells become granular and enlarged, while the surface soon takes on a whitish, macerated appearance. At this time a proliferation of cells, which are not unlike leucocytes in appearance and behavior, is taking place. The ulcer is transverse with regard to the frenum at its beginning, of oval shape, and is longest in the horizontal diameter; it is situated about midway between the orifices of the Whartonian ducts and the extreme front end of the frenum in very young children, a trifle nearer the orifices of the ducts in older children; it has no tendency to increase beyond a certain size, and heals spontaneously as the cough diminishes, leaving a whitish cicatrix behind. In other words, the situation and shape are such as to lead one to believe that it is primarily due to some mechanical action, and as the ulcer always perfectly corresponds to the two middle lower incisor teeth, except as in the one instance given,[1] it is fair to presume that the undue and oft-repeated powerful dragging down of the tongue on to the lower teeth, induced by the paroxysms, has given rise to this complication, as has been explained by the writers quoted.

In proof that this may be a cause, I need only recall to mind first attempts at laryngoscopic examination, when patients frequently complain of the tongue being too forcibly pulled down on to the lower teeth so as to cause laceration of the mucous membrane; I was able to produce an ulcer on my own frenum by voluntarily and frequently pulling down the tongue, in the manner which is seen to take place in violent paroxysms of coughing in young children.

My excuse for spending so much time in the explanation of an obvious matter is the fact that a recent writer in the London journals has sought for some other cause.

THE METRICAL SYSTEM IN PRESCRIPTIONS.

BY ALBERT N. BLODGETT, M. D. HARV.

THE experience of the past six months has done something to show the difficulties attending the introduction of the metrical system of weights and measures into the practice of physicians in prescribing. Since the action of the Massachusetts Medical Society in June last in favor of this system, several physicians of Boston have employed it, and it seems to be gaining favor with both doctors and druggists. Several articles have from time to time appeared in the various journals, aiming toward assisting in the introduction of the new method, but some of these seem to add to the difficulty instead of lessening it. Among these a recent article by Prof. John M. Maisch, of Philadelphia, which has appeared in both medical and pharmaceutical literature of a recent date, bearing the title Metrical Weights in Prescribing, seems to call for some comment. After remarking upon the varying value of the *grain* in different countries as a unit of weight, Professor Maisch says: "The pharmacopœias of Continental Europe and the prescriptions of physicians in those countries express all quantities by weight only, whether the material directed be solid or liquid;" and he urges the necessity of employing weights alone in dispensing medicines of the most varying density: as water, chloroform, alcohol, glycerine, ether, sulphuric acid, etc. After referring to the relative strength of tinctures, etc., Professor Maisch touches upon the fact that liquids of varying densities will represent very different *volumes* at a given weight of each, and by mathematical calculation founded upon the specific gravity of these different substances he deduces the weights of these substances which would yield a certain *volume*, the equivalent of a certain fixed volume of water, say one tablespoonful, which weighs about fifteen grammes.

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[1] MacCall made a similar observation.

He finds that it requires—

11.25	grammes of	ether	to equal 15	grammes	of water	in volume.
18.75	"	glycerine	" 15	"	"	"
22.50	"	chloroform	" 15	"	"	"
12.	"	spts. etheris. nit.	" 15	"	"	"
20.	"	syrup	" 15	"	"	"

and in this ratio to each other must the weight of these articles be calculated. This would seem to entail upon the physician a large amount of unnecessary labor, for in addition to his existing cares he must now charge his memory with the specific gravity of each and every liquid in his pharmacopœia, as these must be prescribed, each at a different weight, to make a certain volume. In pharmacy this may find a useful application, but it would seem to be a burden in prescribing. Probably few doctors would care to adopt so laborious a system.

In prescribing spts. lavend. comp., the physician does not trouble himself to make a mental abstract of the grains of all the components in the dose he prescribes. In giving ol. ricini nobody estimates the dose by its absolute weight in grains on the scale. The guide which most physicians follow in prescribing liquids is the volume of the liquid employed ; and this principle finds a ready and simple application in the metrical system as adopted in the larger universities and hospitals of Europe where this system is in use, as well as in the hands of scientific men generally in those countries — a fact which I am sorry Professor Maisch has overlooked.

Let us see how the system of weights and measures are obtained. First, the metre, the unit of length, is divided into one hundred parts or centimetres ; the centimetre cubed becomes the cubic centimetre, a unit of volume. This volume of distilled water at its greatest density weighs 15.434 grains troy, and is established as the unit of weight, the gramme. In volume it equals 16.2318 minims or about quarter of a fluid ounce.

One thousand cubic centimetres form the litre, and thus large quantities of liquid may be estimated. If all liquids possessed but one density, and therefore one specific gravity, then the gramme in weight of any liquid would equal the cubic centimetre in volume, but this not being the case, the same weight in many instances would yield different volumes. To render this system practical for the physician who does not deal with fixed quantities as does the pharmacist, the cubic centimetre is used for liquids which are therefore prescribed by volume; the gramme for solids which are prescribed by weight, as only in this way do we obtain a useful system. There is an approximation of the metrical to our old system which renders it easy to make a mental calculation from one to the other: thus, 1 gramme equals 15.434 grains; for all practical purposes one gramme equals fifteen grains and four grammes are nearly equal to an ounce; 0.06 gramme is nearly the equivalent of one grain.

In liquid measure thirty cubic centimetres are nearly equal to a fluid ounce; four cubic centimetres to a fluid drachm; therefore: —

℞ Potassii bromidi iij.
Syrupi simplicis }
Aquæ destillatæ } āā ℥ ij.
=
℞ Potassii bromidi grammes 12.0
Syrupi simplicis }
Aquæ fontanæ } āā c. c. 60.0

Which is written

℞ Potassii bromidi 12.0
Syrupi simplicis }
Aquæ fontanæ } āā 60.0

It will be readily seen that if the last two articles were dispensed by weight instead of by volume, the syrup would fall short and the mixture would measure less than intended. The druggist is expected to know how to dispense the articles without the special signs gmm. or c. c., and to understand solids as prescribed in grammes and liquids in cubic centimetres. Another recommendation for this system is that an incompetent pharmacist is totally unable to fill a prescription written in this way, unless, indeed, he use grains for liquids and solids, a mistake which has occurred several times within my experience. We may also feel sure of better drugs from a pharmacist educated to use this system than from one who has acquired his experience as a trade learned from his master.

The metrical system, therefore, seems to offer the following distinct and definite advantages. It dispenses with the signs of the quantities; it employs Arabic figures instead of Roman numerals; it assures the physician of more competent service from the pharmacist, and of a better quality of medicines; and, last but not least, it reduces considerably the danger of mistakes on the part of physician and of druggist.

RECENT PROGRESS IN SURGERY.

BY J. C. WARREN, M. D.

Subcutaneous Osteotomy. — The recent improvements in the operation of division of the upper extremity of the femur for anchylosis of the hip-joint were set forth in a paper read by Mr. Maunder before the Clinical Society of London in May last. In the *Medical Times and*

Gazette for July 22, 1876, is an account of two operations performed by Mr. Maunder by the new method, which appears to be much more easily carried out than the old one, where a fine saw was used for dividing the bone, as recommended by Mr. Adams. Two patients were submitted to this treatment; one was a young girl who for about seven years had been unable to put her foot to the ground. Disease of the hip-joint had ended in fibrous anchylosis, with the thigh fixed at an angle of one hundred and eighteen degrees with the trunk. Thomas's splint had been tried for several weeks with the view of gradually straightening the limb, but no improvement whatever had resulted. The other patient was a young man of fine proportions and well nourished, who had been sent up from Plymouth with the express object of undergoing the operation. Disease of the left hip-joint had supervened upon fever, and had ended in fibrous anchylosis with the leg at right angles with the trunk. Before commencing the operation, an assistant standing in front of the patient drew forwards the soft parts. Mr. Maunder then measured the distance from the top of the trochanter major to the shaft at a level immediately below the small trochanter — this spot being selected because it is the highest beyond the attachment of the numerous muscles which are inserted into the upper end of the femur. At this spot (and while the soft tissues are well drawn forwards) he inserts a double-edged knife down to and at right angles with the bone on the outer side of the limb, cuts through the periosteum, and then, before removing the knife, introduces the chisel, which is also kept at right angles to the axis of the shaft of the femur. With a light wooden mallet the chisel is driven well into the bone, then partially withdrawn, to be again driven onwards, inclined somewhat obliquely forwards, and then backwards, so as to divide the bone in the rest of its thickness. While doing this the hand of another assistant is pressed upwards against the inner surface of the thigh, so as to make counterforce to the direction of the penetrating chisel. Finally, the limb is gradually and carefully extended, any small portion of bone which may happen to have escaped the chisel being at the same time broken down; lastly, a straight interrupted outside splint is applied.

The chisel — a separate one for each case — used by Mr. Maunder is three eighths of an inch in width at the cutting edge, where it is wider than elsewhere, and three inches and a half long in the shaft. The operation is attended with next to no hæmorrhage, and the small wound in the soft tissues through which the chisel has been worked becomes valvular and air-tight as soon as the tissues themselves are allowed to fall backwards into their natural position. A minute or two was the time required to complete the division of the bone in the case of the girl; in that of the man the process was longer, owing to the greater thickness and toughness of the bone.

In three cases in which the operation had been performed several weeks previously, the patients were already able to walk, — one man without the aid of stick or crutch, — with limbs in nearly perpendicular positions, and with little or no lordosis. There necessarily, however, remains some deformity about and around the hip-joint. This is easily understood when it is remembered that there is anchylosis at an angle, and in some cases it has followed so-called dislocation from disease; while, as the division of the femur is made below the small trochanter, there is no attempt to correct the abnormal position of the upper extremity of the bone.

Mr. Maunder stated that in most of his cases there has been no suppuration whatever after the operation, and that it was very limited indeed in the case in which it occurred. This entirely coincides with the experience of Professor Volkmann, who also has employed the chisel instead of the saw. Professor Volkmann, however, used three chisels of different thicknesses to prevent the jamming and sticking fast in the deeper parts of the incision into the bone. The superficial part was divided with the stoutest, the deeper with a thinner, and the deepest with the thinnest instrument of all, so that the cleft was slightly wedge-shaped. Mr. Maunder, by a modification of the form of the chisel, finds it unnecessary to use more than one instrument.

The instrument used by him is called a carver's "cold" chisel. At a recent meeting of the Clinical Society[1] Mr. Maunder reported all of the cases operated upon in this way, seven in number; six of these had been done to correct deformity after hip-joint disease, and one when the shaft of the femur had been divided about its middle to correct deformity following mal-united fracture in a man aged thirty. In two of the earlier cases slight suppuration had taken place, while in the other five the wounds healed as in tenotomy, the patients getting about from six to eight weeks after the operation.

This method has been employed by Billroth in rachitic deformities of the leg, and in club-foot. In a case recently reported[2] this operation was performed upon both tibiæ of a young man eighteen years of age with success. All straightening gained is immediately secured and maintained by a plaster of Paris dressing. Dr. Ashurst of Philadelphia has recently divided the neck of the femur on one side of a young person after Adams's method, and on the other side, below the trochanter, after Gant's method, the patient making a rapid recovery.

Gastrotomy. — A successful case of gastrotomy for stricture of the œsophagus has been reported recently by M. Verneuil, of Paris. An account of this operation will be found in the JOURNAL, December 7, 1876.

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[1] The Lancet, October 28, 1876.

[2] The Medical Record, No. 314, 1876.

Partial Resection of the Stomach.[1] — This operation was originally suggested by Merrem, in 1810, in a cancer of the pylorus, and the operation was practiced by him on three dogs, of which one died the next day, one at the end of twenty-two days, and one at the end of twenty-seven days.

The authors of this paper endeavored to determine by experiment, first, whether extirpation of the pylorus was necessarily fatal; and, second, whether there were cases in which cancer of the pylorus could be entirely removed by this operation without danger of return or of generalization of the disease. Gastrotomy was performed, for this purpose, on seven dogs, and in each case a circular portion of the pyloric extremity of the stomach was removed. There were two methods of doing this suggested: either to produce adhesion of the stomach to the abdominal wall and subsequently to reach the disease without opening the peritoneal cavity, or to resort to simple gastrotomy. The latter method was employed. An incision was made from the tip of the xiphoid cartilage to the umbilicus, the pylorus was drawn through the wound, and the portion removed while the divided ends of the pyloric portion and the duodenum were held firmly closed by an assistant, to prevent the escape of their contents into the abdominal cavity. The divided surfaces were then brought together with sutures. It was found that silk sutures obtained better results than catgut sutures. Pains were taken to bring the mucous as well as the serous surfaces very accurately in contact. Two of the seven dogs alone survived this operation. One died eight months after the operation; at the autopsy a deep ulceration was found at the point of the cicatrix. The other was killed at the end of five months. The cause of death in the other cases was peritonitis, produced in two cases by opening of the abdominal cavity by rupture of the sutures, in two other cases by escape of the contents of the intestine into the abdominal cavity, in one case by an improperly applied suture, and in the other by a separation of the cicatrix. In the two successful cases no stricture was formed at the point operated upon. The authors collected a large number of cases of cancer of the stomach observed in Vienna from 1817 to 1873. From these statistics it was found that the number in which there were no complications to contra-indicate the operation was an exceedingly small one.

Exsection of the Pancreas.[2] — This operation was performed by Dr. Justin, of Sebastopol, California, assisted by Dr. B. B. Allen, who reports the case. The patient was an Indian, thirty-five years old, who had been stabbed in several places. The pancreas was found protruding from an orifice a little in front and above the left kidney. It had been exposed about twelve hours, and was so altered that it was thought unadvisable to replace it. It remained untouched for two days, when a ligature was put around the base of the protruding mass, and a portion seven inches in length was removed. Nineteen days later, the ligature having come away, and the remains of the organ having retracted into the abdomen, the wound closed. The patient appears to be in no way affected by the loss of the organ. The writer says: "Whilst the pancreas was dangling from the orifice it was still secreting a greasy fluid, and, in handling it, my hands became greasy." It is to be regretted that no more satisfactory proof of the identity of the mass removed with the pancreas was given by the writer.

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[1] Gussenbauer and Winiwarter. Langenbeck's Archives of Clinical Surgery, xix. 347, 1876.

[2] Dr. Rutenberg. Wiener medizinische Wochenschrift, Nos. 34 and 35, 1876.

Operation for Cleft Palate with the Object of Obtaining a Clear Speech without the Nasal Tone.[1] — The author reviews the various operations for cleft palate, and points out the difficulties in each by which the nasal tone is still preserved. The insufficiency of the new palate acting as a valve to separate the nasal from the buccal cavity is the cause of the nasal tone. This insufficiency is caused by the immobility and shortness of the new palate, which prevents it from coming in contact with the posterior wall of the pharynx with sufficient accuracy to exclude the passage of air. Passavant attempted to remedy this difficulty by separating the soft from the hard palate by a cross-cut, which leaves the velum freely movable; its lower edge is then refreshed and stitched to the lower wall of the pharynx. Another device of the same surgeon was to free the velum by two lateral incisions extending forwards from the base of the soft palate close to the alveolar processes, the two being united by a cross incision; the flap so formed was dissected up and set back. A communication between the mouth and nose was thus left through the bony fissure, and must be closed by a future operation. These operations have been tried in but one or two cases, and with partial success only. Dr. Mason, of London, has freed the tense velum by lateral incision from the posterior border forwards, converting the velum into a large uvula. This had the effect of relieving the tension, but the valve was still insufficient, and the nasal tone remained. Schönborn lengthened the palate by a flap taken from the posterior wall of the pharynx, and stitched to the lower border of the velum. After union the base of the flap was cut away. The author proposes an operation based on the action of the superior constrictor muscle of the pharynx, which renders this portion of the pharynx quite prominent when the palate is lifted to meet it. A permanent semi-circular prominence is effected by the cicatrization resulting from an excision of a band of mucous membrane from this portion of the pharynx. The portion removed may extend partially or completely across the pharynx. The posterior wall of the pharynx is thus brought nearer to the palate, while the contraction of the transverse cicatrix would counteract the tendency of the longitudinal cicatrix in the newly-formed palate to contract. The contraction of this latter is supposed to shorten a palate which would otherwise be sufficiently long to close the passage. It will be noticed that Schönborn, by taking his flap from the posterior wall of the pharynx, not only lengthens his palate, but produces the desired cicatricial prominence of the pharyngeal wall. The author recommends his method for cases which have already been operated upon by the old methods without improvement of the voice.

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[1] American Medical Weekly, November 11, 1876.

PROCEEDINGS OF THE NORFOLK DISTRICT MEDICAL SOCIETY.

ARTHUR H. NICHOLS, M. D., SECRETARY.

A STATED meeting of the society was held at the Evans House, Boston, Tuesday, July 11th, the president, DR. J. P. MAYNARD, in the chair. Present, forty-six members.

DR. COGGSWELL, of Bradford, president of the Massachusetts Medical Society, present by invitation, was introduced, and made a brief address.

DR. D. B. VAN SLYCK, of Brookline, presented a paper upon the management of the obstetrical forceps. He portrayed the doubts and perplexities of the young practitioner when confronted with his first forceps-case, and argued that this embarrassment was often due to the incongruous, illogical rules laid down in the text-books for his guidance. The usual teaching in this matter was based upon an incorrect theory, and gave rise to a needless multiplicity of complicated and conflicting rules, constantly traversed and disregarded. He would substitute the proposition that the fundamental law of application of obstetrical forceps should take especial cognizance of the curve of the pelvic axis, and not of the particular presentation of the fœtal head; in other words, of the anatomy of the mother rather than that of the child. He designated this as the German teaching, and ascribed to Dr. C. C. P. Clark, of Oswego, New York, the credit of having been the first in this country to publicly profess these views, so widely at variance with the constituted authorities. Dr. Van Slyck proceeded to lay down simple and intelligible rules for applying the instrument, and demonstrated that it is the tendency of the blade to arrange itself in symmetry with the maternal parts, either in accord with the intelligent direction of the accoucheur, or in spite of his efforts to the contrary. He maintained that the sole function of the forceps is to afford means of extraction. To use the instrument as a compressor he thought illogical and dangerous. Traction should be made in the general direction of the course of the uterine and abdominal muscles, modified by the line of the pelvic passages. The application of one third traction and two thirds lateral movement, as is recommended by some authorities, is to be condemned. He considered rigid soft parts, or vigorous expulsive pains, no contra-indication to the employment of forceps, arguing that artificial aid is especially appropriate in such cases. The practitioner, confident of the absolute safety of the proceeding, should resort to the forceps with the object of abridging the period of suffering, and thus anticipate the stage of exhaustion.

Dr. H. A. Martin expressed concurrence with the views set forth in this paper. He mentioned a case lately seen by him, where injury done by the forceps was indicated by a curvilinear mark extending into the fossa of Douglas. Sloughing had occurred in the deeper part of this tract, terminating in a minute opening into the base of the bladder. Pressure of the head could not have caused fistula at this point. It was evident to him that the lesion was caused by the edge of the forceps-blade used with a see-saw motion, the instrument being, in all probability, imperfectly locked. He had never seen a fistula of this character before that was not caused by impacted head.

Dr. Gifford spoke of the importance of emptying the bladder by the catheter before delivering by forceps.

Dr. R. T. Edes read a paper upon intracranial syphilis, which is to be published in the forthcoming volume of the City Hospital Reports.

In reply to questions, he said that it would be possible to distinguish a syphilitic from a non-syphilitic tumor of the brain by the microscope and gross appearances taken together, if not by the microscopic examination alone. For treatment he favored the administration of bichloride of mercury in small doses, and large doses of iodide of potassium (ten to twenty grains three times daily).

Dr. H. A. Martin related a case illustrating the favorable effect of the bichloride in intracranial syphilis. The patient, who had had primary syphilitic lesion one year previous, suffered intense pain in the temples, increased at night, with loss of memory and of coherence of thought. His gait was staggering, and he appeared almost demented. The bichloride was given in small doses for a period of three months, at the end of which time the constitutional effects of the drug became evident, and a sudden amelioration of the more urgent symptoms was noticed, followed shortly after by an abrupt and complete restoration to health.

Dr. Sabine said with regard to the specific endo-arteritis alluded to, that the same occurs in the lungs in ordinary phthisis.

Dr. J. A. Gordon read a paper on suppurative inflammation of the symphysis pubis, giving the history of a case of the disease. The patient, twenty-four years of age, had symptoms during her third pregnancy indicating relaxation of the symphysis. Aching and sharp pains in the pelvis and thighs began on the fifth day after delivery, and increased in severity during several days following. Slight chills occurred on the ninth day, with increase of temperature. On the fifteenth day after delivery the temperature was 103°; there was prostration, nausea, and vomiting, with coated, dry tongue. The slightest motion induced extreme pain. Decubitus was dorsal only, with feet widely extended. Pressure near the pubic symphysis caused intense suffering. Catheterization was necessary twice daily. On the eighteenth day a severe chill occurred; the temperature reached 105½°, and the pulse 120. Constitutional symptoms abated the following day, and eleven days later (the thirtieth day after confinement) Dr. Gordon, by means of the pneumatic aspirator, evacuated ten ounces of pus from the mons veneris. The fluctuating tumor at this point, previous to the removal of the pus, was of the size and shape of half a cocoa-nut. There was a free, bright-red discharge from the vagina. A fluctuating tumor pressed the uterus backward and occupied the front of the pelvic cavity, displacing the urethra and extending downward into the left labium. Three days later, about the same quantity of pus was withdrawn from the left labium. Two or three days after this the abscess pointed on the inside of the left thigh. Incision was made with a bistoury, and about half a pint of pus was removed. Complete relief to all the symptoms ensued. The patient walked about in three weeks, but wore a hip-binder for several months. Recovery was complete.

Dr. Gordon proceeded to describe the anatomy of the pelvic articulations, and discussed the symptoms and pathology of relaxation of the ligaments, quoting as authorities Matthews Duncan, Fordyce Barker, and Cazeaux. The treatment of relaxation was stated to consist in keeping the opposed surfaces of the pelvic articulations closely and firmly together by means of a stout bandage applied around the pelvis and bearing on the hips.

In conclusion, he quoted from a paper by Dr. F. G. Snelling[1] a description of suppurative inflammation of the pelvic articulations. It is there stated that caries of the bones may take place, in which case the result is apt to be fatal. Anchylosis seldom ensues.

Dr. H. A. Martin had now under observation his second non-puerperal case of relaxed symphysis pubis, in the person of an old woman. The symptoms were extreme pain, slight separation of the articular surfaces, and partial inability to walk. There was no crepitus. Perfect relief had been afforded by the application of a band five inches wide, to which were attached two straps and buckles, and pads of cotton.

Dr. W. P. Bolles exhibited a wet preparation of a gravid uterus containing a fœtus of about the sixth month. By means of windows cut in the anterior and posterior walls of the womb he showed the child and placenta *in situ*, the uterine decidua, the membranes, and the umbilical cord.

Dr. G. K. Sabine next read a paper on Lister's dressing, exhibiting specimens of the material used, describing the mode of its preparation, and finally the method of its use in antiseptic surgery. The advantages claimed for this dressing are that, by excluding all germs, it prevents putrefactive fermentation in a wound, and consequently pyæmia and septicæmia. It is not alleged that it prevents suppuration, as is imagined by many; it does frequently, however, have this effect, and the clots filling a wound usually become wholly organized. The fever supervening upon surgical operations seems to be much less, while the subsequent pain and discomfort are diminished. Dr. Sabine quoted from numerous eminent authorities to show that the claims advanced in behalf of this dressing are well founded.

Dr. H. A. Martin read a paper on Tracheotomy without Tubes, which was reserved for publication.

He also exhibited a calculus about the size of a walnut, presumably uric acid, correctly diagnosticated by Dr. J. S. Flint and himself as adherent. It was removed with difficulty, but with successful result, by the operation of lithotomy.

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[1] American Journal of Obstetrics, February, 1870.

ILLUSTRATIONS OF CLINICAL SURGERY.[1]

This, the fourth fasciculus of the Hutchinson plates, is the first of a series of three illustrating the results of injuries to the head. The plates are taken chiefly from a large volume of original drawings which accompanied the author's Astley Cooper prize essay for 1864. They are selected to explain the more frequent causes of death, and are introduced by a tabular list of the fatal cases which were narrated in the essay. It will be seen by reference to this table that the early deaths were caused by concussion, contusion, and compression; the next series includes deaths from arachnitis and encephalitis; and the last group, those in which inflammation of bone was the cause of the other changes which led to death.

The first plate illustrates direct traumatic arachnitis. In this case the inflammation exerting an influence upon the cortical layer of the brain in contact with the inflamed part produced hemiplegia, which might have been thought to be caused by pressure. Inflammation of the sub-arachnoid spaces at the base of the brain, passive congestion and diffuse ecchymosis of the pia mater, and contusion of the surface of the brain are the subjects of the accompanying illustrations. In the subject of the latter sketch death was supposed to have taken place (twenty minutes after the accident) from simple concussion, although at the post mortem lines of fracture in the base of the skull were found and a thin clot of blood in the arachnoid cavity, the latter being considered merely concomitants of the injury. The author, however, observes that many cases of concussion which recover are attended by surface lesions at least as extensive as those seen in this sketch; also that, although we may not meet with cases of death from concussion without lesions, it is his conviction that a considerable number of the head cases, fatal within periods of a few hours or a day or two, die from the general effects of the shock to the cerebral mass.

The illustrations are beautiful specimens of art, and this series promises to be as interesting as those portions of the work which have already appeared.

SMALL-POX IN ENGLAND.

The value of vaccination is not likely to suffer in public estimation by the silly attacks of conceited ignorance which from time to time are made against it. England is at present suffering from an epidemic of small-pox, which though so slight as hardly to deserve the name is justly commanding much attention. Deaths from the disease in London reached fifty-two in the week ending November 18th, which is more than there have been for over four years. The records of the next week, however, showed only forty-three. We are not aware how serious an anti-vaccination movement there has been, but we gather that some remarks of Mr. Gladstone's, though rather of the oracular, non-committal kind, have tended to strengthen it. The remarks in question were in a letter, read last May at an anti-vaccination meeting in Manchester, and later in a private letter which naturally became public. On the first occasion he wrote as follows: "I regard compulsory and penal provisions, such as those of the Vaccination Act, with mistrust and misgiving, and were I engaged in an inquiry I should require very clear proof of their necessity before giving them my approval; but I am not able to undertake to enter upon an examination of the question." In his last letter he is less guarded: "I view with misgivings all new aggressions upon private liberty, unless upon a clear and certain proof of necessity; and I keep my mind open upon the question whether such proof has or has not been supplied in the matter of vaccination." Mr. Gladstone apparently felt he had gone too far, for he subsequently authorized Dr. Russell Reynolds to say for him "that he no more questions the use of vaccination, which is practiced and repeated in his family, than he questions other well-established medical doctrines and practices," which is ambiguous after all. This is but another instance of the tendency of politicians, statesmen if you will, to look on matters of public health as mere trifles to be taken up or thrown aside according to the pleasure of the many-headed infant they wish to conciliate. Some curious statistics, arising perhaps from this discussion, have been brought out, which though really strongly in support of vaccination may be so presented as to appear to the unwary to have the opposite tendency. The *Lancet* of November 25, 1876, publishes some statistics regarding the mortality of hospital small-pox cases in the eighteenth and nineteenth centuries, which seem to show that the proportion of mortality from small-pox at the present day is as great as it was more than a century ago, before the protective influence of vaccination was known; but the figures show also that at the present day the disease is far more fatal among the unvaccinated than it formerly was.

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[1] *Illustrations of Clinical Surgery.* By Jonathan Hutchinson, F. R. C. S. Philadelphia: Lindsay and Blakiston. 1876.

In 1723 Dr. Jurin recorded 17,151 cases of small-pox, among which the mortality was seventeen per cent. Duvillard records 24,594 cases, occurring in various parts of Europe between 1700 and 1763, among which the mortality was nineteen per cent. In the London Small-Pox Hospital the mortality among 6456 cases treated in 1746–63 was twenty-five per cent. Of 14,808 small-pox cases treated in the Metropolitan Asylum district small-pox hospitals during the epidemic in London in 1871–72, the mortality was nineteen per cent. Seventy-five per cent. of the cases then under treatment were vaccinated cases, but the mortality was only ten per cent. among them, while it was forty-five per cent. among the unvaccinated. It appears, therefore, that the recent proportion of mortality among unvaccinated small-pox is forty-five per cent., whereas in the last century, if the before-mentioned figures are trustworthy, the proportion did not average twenty per cent.

"These figures," says the *Lancet*, "seem to prove that modern small-pox is a more fatal type of the disease than was the small-pox of the eighteenth century. More recent experience tends to confirm this view, for since the beginning of this year 687 completed cases of small-pox have been recorded in two of the London hospitals. The mortality among these has been twenty-four per cent., exceeding by five per cent. the rate of mortality in 1871–72. The proportion of vaccinated among those treated this year has been seventy-five per cent., and the mortality of the vaccinated has been thirteen per cent., whereas the mortality of the unvaccinated has been fifty-seven per cent. Thus the protective influence of vaccination continues conspicuous, although the mortality among the unvaccinated shows so remarkable an increase." Moreover, we must not forget that beyond all question many through the influence of vaccination escape the disease altogether who probably would have otherwise suffered from it. During the latter half of the eighteenth century ninety-six deaths out of a thousand in England were due to small-pox, while in the first half of the present century there were but thirty-five in a thousand. It has been suggested that small-pox has lost a part of its virulence, but the mortality among the unprotected shows that this view is not tenable.

MEDICAL NOTES.

— A sure sign of death, according to Dr. H. Almès, in *La France médicale*, April 1, 1876, is failure of the iris to contract after puncture of the cornea and discharge of the aqueous humor. The puncture of the cornea made with a cataract-knife, or an ordinary lancet even, is a totally harmless operation.

— The Baden privy councillor, Dr. Kussmaul, has received a call to occupy the chair of clinical medicine made vacant by Professor Leyden, lately appointed professor in Berlin in Traube's place.

— In answer to a question of a correspondent, the *British Medical Journal*, November 25th, says: "If the re-vaccination have been performed about or after puberty it is not necessary to repeat it; but if it have been done before that age it should be repeated."

— At a meeting of the Paris Academy of Medicine, November 14th, M. Féa, of Padua, showed by comparative tables that maize, or Indian corn, is superior to all other cereals in fatty matters; that it may be considered as a perfect food; and that the objection sometimes raised against it of tending to create disease is untenable.

— It is interesting to compare the statistics of mortality of Boston for a few weeks past with those of the corresponding weeks a year ago.

For the weeks ending October 30, November 6, 13, 20, and 27, 1875, the mortality was 156, 140, 206, 159, and 165 respectively, while for the weeks ending October 28, November 4, 11, 18, and 25, 1876, the mortality was 116, 133, 134, 118, and 121 respectively. The lesser mortality of the present year is especially marked in the smaller number of deaths from zymotic diseases. For the above-mentioned weeks in 1875 they were 46, 53, 58, 51, and 54, while for the present year they have been 28, 32, 30, 22, and 17.

— A down-town church in New York, says the *Sanitarian*, after going through the process of an elegant frescoing, recently invited the attendance of the newspaper reporters. As a consequence, among other elegant things prominently noticed in the *Sun* of the next day were the elaborately executed scriptural mottoes on the church walls. One of these, quoted from Jacob's exclamation at Bethel, reads, "How dreadful is this place! this is none other but the house of God." The reporter goes on to remark: Considering the fact that there is a total absence of ventilation, and that a great many of the tenement-house population worship at this church, the Scriptures could hardly furnish a more appropriate motto than "how dreadful is this place." It is a dreadful shame for people to be untidy in their persons, or to go unwashed to the house of the Lord; and it is a dreadful piece of carelessness for a building committee to make a church so much like a packing-box that the foulness thus communicated to the air cannot get out of doors. They seem to be afraid to turn that bad air out of doors, probably for fear it will pollute the neighborhood. So the sexton locks it in by shutting all the doors and windows as soon as the congregation depart.

— Dr. Saulmann, in a meeting of the Hufeland'sche Gesellschaft, related a case of dysmenorrhœa membranacea. The woman, before marriage, had menstruated regularly, and afterwards gave birth to four healthy children. The births were normal. In August, 1875, during menstruation, the patient observed the discharge of large shreds, which on examination were thought to be the sequelæ of an abortion. No embryo was discovered. The shreds came away on the first day of menstruation only. In September another membrane came away, which on gross examination appeared to consist of blood-clot and a few shreds. In October, November, and December the same membrane appeared. The last one was examined by Virchow, Orth, and himself. The uterus was swollen, lengthened, a little anteflected; the general condition was good; the face was pale, and there was a little fluor albus. After October no coitus took place. Upon a detailed examination of the membrane the reporter sums up as follows: —

(1.) That the dysmenorrhœal membrane is *pathological*, and does not depend on *impregnation*, because the ends of the utricular glands are found in it, that is, it consists of the whole uterine mucous membrane.

(2.) It is pathological because it appears after it has been certainly determined that no coitus has taken place.

— The *Wiener medicinische Presse* of October 15, 1876, has the following regarding the danger of kerosene smoke. A merchant returned home about two o'clock at night and found his wife lying on the bed groaning heavily and unconscious. She was waiting his return, and at last, tired out, laid herself on the bed, after turning down the wick of a lighted kerosene lamp as low as possible without extinction. In this position of the wick, if the oil is bad, a vapor mixed with an innumerable quantity of specks of soot diffuses itself through the apartment, and so covers the eyes, nose, and respiratory organs that one runs a danger of suffocation while falling asleep. It is advisable, therefore, to allow the lamp to burn brightly or to extinguish it entirely.

— The *Berliner klinische Wochenschrift* mentions that Traube's library is in the possession of the Berlin publisher, Hirschwald, and that a very fine catalogue of it has appeared. The catalogue contains four thousand and forty-two titles, leaving out of account the extraordinarily rich and almost complete sets of existing journals and archives. It laments the fact that this carefully selected library is not secured for some scientific institution, but is in danger of being scattered.

— In the *Zeitschrift für Geburtskunde*, 1875, i. 2, Martin and Ruge publish the results obtained by the examination of the urine of twenty-four new-born children. Sixteen were born at the end of a normal pregnancy, and eight were born in the ninth month. Contrary to the accepted belief that the child urinates immediately after birth, they found that one third of the children first urinated twenty-four hours after birth, and only one eighth urinated twice within this time. The amount of the first urine averaged 9.6 ccm. (ʒ 2.59), and thence increased in quantity, especially after the third day. The average for the first ten days was 40 ccm. (ʒ10.8). The color of the first urine for the first five days was an intense yellow; from the sixth day it became paler; the reaction of the first urine was mostly acid; the specific gravity, which was at first 1012, fell up to the tenth day, when it was 1003. Albumen was frequently found in the urine of the new-born children, which gradually decreased and disappeared on the eighth day. Bile coloring matter could not be found, even in the urine of icteric children. There was always albumen found in the urine of still-born children, which the writers regard as partly a post-mortem appearance, since urine placed in the bladders of dead children showed albumen after eighteen hours; they also consider that obstruction to the circulation (prolapse of the cord, etc.) during the birth may give rise to the albumen. In the urine of those children whose mothers at the same time suffered from nephritis, very abundant albumen and even hyaline casts were found. In fourteen out of twenty-four (living) children, hyaline casts were found, together with different kinds of epithelium, and the authors therefore thought that many cases of convulsions might perhaps depend on uræmia. The kidneys of new-born children, according to these investigations, are in a hyperæmic-catarrhal condition, which may rise to a true inflammatory process, especially if the mother is sick at the same time. Usually the diseased appearances disappear shortly after birth. The therapeutic indications are therefore obvious.

BOSTON CITY HOSPITAL.

SURGICAL CASES OF DR. G. W. GAY.

Lupus of Face; Removal by the Knife. — H. N. B., a blacksmith, sixty-eight years of age, entered the hospital in May, 1875. He had a ragged, indolent ulcer under the left eye, extending from the inner to the outer canthus, and an inch and a half wide. The lower lid was destroyed, but the eye was sound. It seems that he had a small ulcer in this place seven years before, which healed under treatment and remained healed until three months prior to his entrance to the hospital.

This patient stayed in the hospital until October 9th, when he was discharged considerably relieved, but by no means well. He was treated by the actual and the galvano-cautery, nitric acid, the acid nitrate of mercury, and various lotions.

Mr. B. was re-admitted in August, 1876, with the disease very much increased. The left eye was destroyed, and the right cornea was getting a little cloudy. The ulceration extended on to the right side of the nose, down upon the left cheek, round upon the temple, left eyebrow and upper lid, as well as deep into the orbit. He suffered greatly from the constant pain, and begged that something might be done for his relief.

August 25th. The patient was etherized and the whole growth thoroughly excised with the knife. The operation was necessarily rapid on account of the weak condition of the patient, and the hæmorrhage was profuse. It was controlled by pressure as well as possible during the operation, and afterwards by silk ligatures cut short, and by a compress and bandage. The erosions upon the malar bone were cauterized with nitric acid. The orbit was cleaned out, and the nose divested of skin over two thirds of its extent. The patient rallied well from the operation, and with tonic treatment and simple dressing and a little grafting the wound was reduced to a small granulating spot, half an inch in diameter at the time he left the hospital, three months after the operation. At present there are no signs of a return of the disease.

Cleft Palate; Operation; Failure followed by Great Improvement. — B. L., a schoolboy, aged fourteen years, entered the hospital September 1, 1876, with a congenital cleft of the soft palate. It was an inch and a half long by an inch and a quarter wide, and extended to the hard palate. The patient was under treatment last year in this institution for suppurating glands of the neck which have nearly subsided. The boy seemed to be in a fair condition for an operation, and on being assured that it would probably improve his speech and power of swallowing somewhat, and moreover would be attended with very little danger, the mother requested that an effort should be made to close the fissure.

The patient was fully etherized, Smith's gag was adjusted, and the edges of the cleft were pared. Free lateral incisions were then made extending completely through the soft palate and a little way into the hard palate. The flaps were carefully adjusted, and secured by eight or ten silk sutures, there being of course no tension upon any of them.

There was no union by first intention except for about half an inch at the top of the fissure, and all but two of the sutures sloughed out in the course of ten or twelve days. Three weeks after the operation the patient was discharged, the fissure being nearly as large as it was when he came to the hospital. He continued to come to us for some time to show his throat, and when last seen, in November, the side-cuts were entirely closed, leaving no deformity, and the original fissure was reduced to a quarter of its former size. He could talk a little better and could swallow much easier. He was advised to wait another year before having anything more done, as he was gradually improving.

We lately operated on a young man for a perforation of the soft palate, the result of specific ulceration. Although the operation did not succeed, yet the parts were aroused to action and the opening contracted rapidly, so that when last seen, some weeks afterward, it was nearly closed. This is the second case of syphilitic perforation of the palate we have tried to close by an operation. The first case was successful, notwithstanding the fact that the opening was half an inch in diameter and extended through the hard palate.

LETTER FROM NEW YORK.

Messrs. Editors, — On the 25th of July, 1771, the board of governors of the Society of the Hospital in the City of New York, in America, consisting of twenty-six members, held their first meeting, under a charter granted by George the Third. In 1773 the board purchased five acres of ground on which to erect a hospital. The foundation was laid July 27th of the same year. In February, 1775, when it was almost completed, the building accidentally took fire, and was nearly consumed. The war coming on soon after prevented any attention to the institution for some years, and it was not until the 3d of January, 1791, that the building was in a proper condition for the reception of patients, when eighteen were admitted. Since then it has never closed its doors until, by a vote of the board of governors, it was abandoned on the 19th of February, 1870, and the property was leased for business purposes. The hospital was situated on a piece of ground bounded by Broadway, Worth, Duane, and Church streets. It soon became the most extensive school of surgical practice in this country. The names of Wright, Post, Mott, Stevens, Hosack, Kearney Rodgers, and many others who have been connected with the hospital, have given to the institution a world-wide reputation. The location of the hospital was everything that could be desired. Then why was it abandoned? In 1818 the board purchased the property on which the Bloomingdale Insane Asylum now stands, consisting of eighty (80) acres, which institution has continued under the control of the board. The reason assigned for closing the hospital was that it ran behind in expenses about twenty-five thousand dollars a year, and that they could not afford it. About this time property was purchased in Westchester County on which to erect a large asylum to take the place of the one at Bloomingdale. There has been for years two parties in the board of governors, the friends of the hospital and those of the asylum, and it is not too much to say that they sacrificed the hospital to the asylum. At the time of closing the hospital the value of the property held by the board, not including the hospital grounds, was at least *two millions*. In 1874 a plot of ground, one hundred and seventy-five feet wide by two hundred feet deep, extending from Fifteenth Street to Sixteenth Street, and situated between Fifth and Sixth avenues, was purchased for three hundred and fifteen thousand dollars, and on the Fifteenth Street side of the property they have been erecting what may be called the new New York Hospital. The building is almost completed, and will be opened early next year.

On the Sixteenth Street side, and standing some distance from the street, is a building formerly used as a dwelling; it is ninety-five deep by fifty feet wide, and a description of it was given in a former letter. This now contains the library and pathological cabinet, and is to be used as the executive building of the hospital, thus leaving a plot of ground one hundred and seventy-five feet by ninety on which the hospital has been placed. The materials used in the construction of the building are Philadelphia pressed brick with Nova Scotia stone trimmings, ornamented with tiles. No wood is used; all the beams, rafters, door and window frames, are of iron, and the floors are constructed of iron beams, filled in with brick, covered with tiling laid in cement, thus making a perfectly fire-proof structure, and leaving no spaces for rats or other vermin. The building is four stories high, with basement, cellar, and a mansard roof, containing one story over the wards, and three over the main building. Perhaps the structure cannot be better described than by stating that it consists of a main building, fifty feet wide by seventy-two deep, and seven stories high, with a series of wards extending out on either side, making a total frontage on Fifteenth Street of one hundred and seventy-five feet, the wards extending into the main building. At right angles to the wards, and on their further end, there are extensions running back, in which are placed the water-closets, etc. The front of the building has a southern exposure. Considerable difficulty was experienced in laying the foundation on the western end, on account of the damp condition of the soil, and it was not until the ground had been thoroughly piled that the walls could be laid, and even then the workmen were compelled to work in several feet of water until the foundation had been raised some distance, notwithstanding the constant use of pumps.

The cellar floor is grouted eight inches deep, and over this is cemented. This floor contains a portion of the engine, boilers, and coal bunks, besides the heating, water, and waste pipes. The basement is a few feet below the level of the sidewalk, and is well lighted from an area extending the whole length of the building. It is unequally divided by a drive-way eight feet wide, leading from the street to the back of the hospital. On the left of this drive-way are two rooms for the use of the coroner, and beyond this is the dead-house, situated in the extension. On the opposite side, and fronting on Fifteenth Street, are the rooms for the porter and the apothecaries' department. Beyond this, and occupying the whole width of the building. is a room seventy-seven by twenty-nine feet, having six small rooms partitioned off on the side furthest from the street. Each room contains wash basins, etc. This is to be used as a dispensary department, and the rooms are for examining rooms. In the main building at the back are two wards, male and female, for the reception of night cases; each room is fifteen by fourteen, provided with bath-tub, hot and cold water, and is well lighted. There are also four rooms, each ten by eight, for the reception of violent cases of delirium tremens. Each room is lighted by a small window near the ceiling; they seem rather small, dark, and badly ventilated. The first floor is used chiefly for administrative purposes, and is divided by the main entrance to the hospital into two equal portions, fourteen feet wide, and extending back twenty-four feet to the elevators, leaving a passage-way on one side to the stairs at the back. Extending on the right and left from this main hall are two passage-ways with rooms on either side. On the left as you enter, and on the front of the building, are first two rooms communicating, one eighteen by thirteen, the other fourteen by thirteen; these are to be used for the office of the hospital. Beyond is the room for the medical house-staff, with a sleeping room for the house-physician opening into it. There are five other rooms, varying in size from nineteen by thirteen to thirteen by thirteen, to be used for private patients. There are also water-closets.

On the opposite side of the vestibule and opening into the corresponding hall are rooms for the surgical house-staff, with connecting bedrooms. Opposite are the bath-rooms and water-closets for the staff, also a room for the reception and examination of patients applying for admission. At the end of this passage-way is a ward thirty-one by thirty, which is to be used for children; it will contain eight beds. It is lighted by two large windows on the front and four in the rear. The nurses' room opens into this ward, and also into the passage-way.

In the main building at the back are two rooms, one on either side of the main hall, one twenty by fifteen, the other sixteen by fifteen, which are to be used as the dining-rooms for the staff and nurses. The porter's room is also on this floor, and is connected by electric annunciators with all rooms and wards on the east side, while those on the west side are in communication with the office. At the end of the vestibule and in the middle of the main building are the elevators; one in front is large enough to receive a bed; the other just back of this is for passengers and luggage; and both of these are worked by steam, and run from the cellar to the second story in the mansard roof.

The second, third, and fourth floors are alike in their arrangement, and are divided into wards and the necessary rooms. There are two wards, one on either side of the hall, each 77.2 by 29.6 feet, and fifteen feet high. There are ten windows in front, eight in the rear, and two on the further end. Each window is about nine feet high by three feet wide, and is divided into two unequal portions, the upper being square and containing stained glass, and the lower portion consisting of two sashes thirty by forty inches each, and containing a pane of French plate glass. Those on the rear or north side have double windows. The walls are hard finished, with all corners rounded. The wards are well lighted, but one would think that stained glass windows would be anything but agreeable to the sick. On the left as you enter the ward, and on the north side, are two doors, the one leading into a passage-way going to the ward dining-room, sixteen by sixteen, and connected with the kitchen by a steam elevator; between this room and the ward is the nurses' room, twelve by nine, opening into this passage-way and into the ward. It is fitted with a marble wash-stand with hot and cold water; over this is an electric annunciator and a gong connected with each bed in the ward. At the extreme end of the ward and on the north side is another passage-way, nine by eight, leading to the extension, twenty-nine by sixteen, which contains a room for hot air, steam, or sitz bath; next the ward bath-room, then the wash-room, and at the extreme end the water-closets are placed.

By this arrangement the bath-room and water-closet are placed in a separate building, away from the wards, so that it does not seem possible that there can be any trouble arising from that source. There is a balcony running the whole length of the building on the second, third, and fourth stories, communicating with each ward by a door. One cannot help thinking that the architect has sacrificed safety to effect; the railing is so low that there will be great danger of patients falling over. The capacity of the wards is about twenty-one beds each, the beds being placed between the windows.

(*To be concluded.*)

A LETTER FROM THE LATE DR. RUSH.

MESSRS. EDITORS, — The following letter of Dr. Rush may possibly find a place among your centennial items. It contains, besides a list of books recommended by him for students of that day, a few practical hints not unworthy the attention of medical scholars of our own time. The letter is addressed to the late Dr. B. Lynde Oliver, of Salem, for many years his constant correspondent.

F. E. O.

PHILADELPHIA, *May* 9, 1808.

DEAR SIR, — I have generally recommended the following books as a nest egg for a medical library, to the young gentlemen who leave our university, with a strong injunction to add to them in proportion as the resources of their profession shall enable them.

Anatomy: Cheselden's, or the New System of Anatomy.
Surgery: Bell's Surgery, Desault's do.
Materia Medica: Cullen's Materia Medica, Murray's do.
Chemistry: Woodhouse's edition of Chaptall's Chemistry.
Botany: Barton's Introduction to the Study of Botany.
Physiology: Haller's First Lines, or Blumenbach.
Practice of Physic: Sydenham, Huxham, Cleghorn, Hillary, Darwin, Cullen, Jackson, Alibert (since translated by Dr. Caldwell), Clark, Mosely, Blane, Vanswieten's Commentaries on Boerhaave's Aphorisms, Duncan's Medical Commentaries, Medical Repository of New York, Cox's Philadelphia Medical Museum — the two latter to be subscribed for and taken constantly.

I have taken pains to inculcate upon our graduates to keep a record of the weather, fruits of the year, and Epidemics, in one book, and a record of chronic diseases in another. It is inconceivable how much a physician may learn from *himself* by thus committing to paper facts, events, and even thoughts, connected with his profession. A thousand things escape from our memories in the hurry of business, and from the lapse of time, which would, if preserved, be extremely useful to ourselves and others. I believe we seldom remember *correctly* the results of our practice for more than two years, or, if we do, it is only a solitary case or two, which, from being rare, seldom afford us any advantage in subsequent life.

I thank you for your kind notice of my poor labors in medicine. They would be less exceptionable had they appeared with the facts and reasonings which are contained in my lectures.

From, D^r Sir, your friend and brother in the profession of medicine, BENJ'N RUSH.

DR. B. LYNDE OLIVER.

P. S. I have never seen nor read of a case of mania from the intemperate use of tobacco. Mania from strong drink is a very common disease in Philadelphia. It bears a much less force of depletion than mania from any other causes. The excitement of the system in it is so transient that I have compared it to a soap bubble. I have never used the digitalis in any of the forms of mania, and seldom with any advantage in any disease except in dropsies, and even in them I have found other remedies more safe and more effectual.

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MESSRS. EDITORS, — Is it according to the ethical code of our state society for physicians to advertise themselves in the daily newspapers? It certainly is undignified and not in good taste, and probably disgusts those of our patients who are cultivated, though the common herd may be attracted thereby. A certain physician lately settled in B., a town near Boston, advertises regularly in the local paper of his town, and also advertised last week in the *Boston Herald*. If this communication meets his eye I hope he will have the wisdom to discontinue the custom, unless it is approved by our profession. ⁂

December 13, 1876.

COMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING DECEMBER 9, 1876.

	Estimated Population, July 1, 1876.	Total Mortality for the Week.	Annual Death-Rate per 1000 for the Week.	Death-Rate for the Year 1875.
New York	1,061,244	483	23.67	
Philadelphia	825,594	324	20.41	22.24
Brooklyn .	506,233	199	20.44	24.92
Chicago . .	420,000	163	20.17	19.75
Boston . .	352,758	144	21.23	26.20
Providence	101,500	38	19.46	19.02
Worcester .	51,087	11	11.19	20.91
Lowell . .	51,639	14	14.09	20.55
Cambridge	49,670	20	20.94	23.31
Fall River	50,372	13	13.42	23.99
Lawrence .	36,240	12	17.02	25.96
Lynn . .	33,548	5	7.75	19.23
Springfield	32,000	7	11.37	20.93
Salem . .	26,344	18	35.53	22.92

Normal Death-Rate, 17 per 1000.

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MESSRS. EDITORS, — I received to-day the card I send you.[1] The whole theory seems strange to me. Is it possible that such a disease as chorea can be left entirely to the "vis medicatrix naturæ" without any medication at all? Have we come to this, that the most dreaded diseases can be left alone, by the thinking physician, to take care of themselves? If this is so, physicians may as well relinquish their profession and leave the whole thing to nurses. Chorea is a disease very difficult to cure. I speak from an experience of thirty years. I have had cases come under my care that had existed for from one to three years without relief, though they had been treated by many skillful physicians.

These cases needed the right kind of treatment. *Nursing* alone never would give relief. I remember once being called to a child fourteen years old. She had been afflicted for three years. Eight or ten physicians had tried their skill in vain. I made a single prescription. This was it: —

℞ Fowler's arsenical solution, four drops every six hours.
℞ Griffith's mixture of myrrh and iron, a dessert-spoonful every six hours.

and a laxative once a week. In a month the child was restored to perfect health, and has never had a return of the disease since.

This talk about such cases recovering without medicine is perfect nonsense. Fashion is one thing, common sense another. These dogmatical statements, coming from London or any other part of the globe, can never dethrone medical common sense or the experience of the thousands of physicians that have lived since the days of Galen and Hippocrates.

COMMON SENSE.

LEVERETT, *December* 15, 1876.

BOOKS AND PAMPHLETS RECEIVED. — A Series of American Clinical Lectures. Vol. II. No. 11. On the Treatment of Eczema. By R. W. Taylor, M. D., Physician to Charity Hospital, New York. New York: G. P. Putnam's Sons. 1876.

Naval Medical Schools of France and England. Reported to the Bureau of Medicine and Surgery. By Richard C. Dean, Medical Inspector of United States Navy. Washington. 1876.

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[1] This is a reprint (not coming from the editors) of the remarks on cases of chorea treated without medicine, which appeared November 14th, page 713. — EDS.